

this purpose a given quantity of mercury is saturated with pure silver, reduced to a very fine powder and well refined, the whole is triturated in a mortar about two hours, that the metals may incorporate well; and it is passed through, or in better words, the whole is forcibly expressed through a piece of kid skin, deprived of its epidermis, in order to extract from it nearly all the mercury. The residue thus obtained, is a very compact paste, which is to be enclosed in a wide mouthed well ground glass stoppered bottle, to be used when needed.

This preparation is used cold, being made to penetrate into the carious excavation with a stopping instrument, and is managed exactly like the substances in leaves. The mercury evaporating by the heat of the mouth alone, and that in the short space of three or four days, the silver remains in one piece in the hollow of the tooth, filling all its anfractuositities, and becoming as compact as if it had been cast in the same cavity. This new plan possesses then, an incontestable superiority over all at present commonly employed; since, in the first place, it amalgamates better and without requiring as much packing as the metals in leaves; next because it does not need the aid of fire like the metal of Darcet; finally because it does not harden until after a length of time that allows of its removal in case the experiment should prove that the tooth was not in a requisite condition for permanent stopping.

The silver paste undergoes scarcely any contraction, such as might be feared from the evaporation of the mercury of which there is, after its expression in the kid leather, but an almost inappreciable proportion. As to the fear that might be entertained of the action of this portion of mercury on the teeth, it is absolutely illusory, since this metal does not remain there except in an amount much less than in the metal of Darcet as modified by Regnard; it is infinitely superior too in hardness. In a word, this paste it appears to me ought to at once replace all other means of plugging, since it not only possesses all their advantages without their inconveniences; but it accommodates itself to almost every case, and presents at the same time both a perfect homogeneity and a firmness which would be sought in vain elsewhere. This hardness is such in fact that the point of a steel instrument which very easily penetrates the fusible metal hardly scratches the other. I do then an act of duty in seeking to extend its use, by calling to it the attention of practitioners who think rightly that the loss of a tooth is always to be regretted, and that its extraction is a sacrifice only to be resolved upon at the last extremity.

MIDWIFERY.

41. *Case in which Six Pregnancies occurred during Amenorrhœa.* By Dr. FLECHNER, of Vienna.—A woman, now thirty-five years old, menstruated for the first time in her fourteenth year, being then but imperfectly developed. Menstruation continued regular for some time, but then ceased for nine months, during which time many symptoms of chlorosis appeared. She then fell into a feverish condition, which continued for several weeks, but left her in a better state of health than she had previously enjoyed. During her convalescence the catamenia reappeared, and they now observed a regularly periodical type for several years, though still usually accompanied by congestion of blood about the head and chest. In her twenty-second year she married, and during the next year gave birth to a healthy child, which she suckled for only a few months, for her supply of milk then decreased, though no traces of return of the process appeared. Instead of the latter there came on periodically pains in the head, varying in severity and length of continuance, with a sensation of pressure and heat in the frontal and parietal region, and frequently great distress of breathing and palpitation of the heart, or even more or less distinct paroxysms of asthma. Notwithstanding the physiological energy of the uterus seemed completely paralyzed, yet after two years she again became pregnant. Gestation and parturition were gone through in the same manner as at the first time; and then, in

the place of the catamenia, which were still suppressed, the same train of periodical symptoms again came on. In this way the woman became a mother six times in the course of thirteen years, without a trace of menstrual fluid ever once appearing; and she declared that during this time she had observed neither a menorrhœa nor any morbid secretion of the uterine or other system, that could be deemed vicarious of the catamenia.

Cases of conception during lactation, before the return of the catamenia, are by no means rarities, and the secretion of milk continued for a year sometimes hinders the secretion of menstrual blood without at all excluding the possibility of conception. But in this case the peculiar condition induced by lactation could have had nothing to do with the suppression of the menses.—*London Med. Gaz.*, from *Medicin. Jahrbücher Osters Staates*, B. xxx, S. iv.

42. *Singular Case of Tumour in the Pelvis.* By Professor von D'OUTREPONT, of Würzburg.—A woman, twenty-six years old and well made, gave birth when twenty-five years of age to her first child without difficulty. Towards the end of her second pregnancy she again applied at the hospital in consequence of experiencing pain in the pelvic region. Vaginal examination discovered a hard and painful tumour, extending from the inner surface of the left ischium nearly to the corresponding point on the opposite side. It was hard, globular, even on its surface, and occupied the ascending ramus of the ischium and the descending ramus of the pubis, and extended over the obturator foramen. It was impossible to reach the lower segment of the uterus, or to feel any part of the child.

The size and hardness of the tumour seemed to leave no chance of the birth of a living child, even by the induction of premature labour. Professor D'Outrepont, who doubted whether the tumour was fibro-cartilaginous, or a true bony exostosis, asked the opinion of many eminent men who saw the case. They did not express themselves with certainty as to its nature, and the patient refused to allow an experimental incision to be made into the tumour.

A short time before labour began, the tumour was thought to have become slightly compressible. When labour commenced, the professor called a consultation in which it was determined that unless a great change had taken place in the character of the tumour, an attempt should be made to remove it, or to cut away the bone if that should be found to be implicated, and as a last resource, to perform the Cæsarean section.

On an examination being made, the right foot of the child was found to present, the cord was prolapsed, and did not pulsate. The tumour, however, was found to be so much softened that it was possible to pass three fingers through the outlet of the pelvis. Professor D'Outrepont brought down the foot, in doing which he found that the hips had compressed the tumour still more. The chief difficulty was experienced in extracting the head by means of the forceps, which gave the patient considerable pain. The child was still-born, but was speedily recovered. After the birth of the child the tumour regained its former size, so that the placenta could not be expelled by the natural efforts, and it was necessary to introduce the hand in order to remove it.

The patient recovered rapidly, and returned ten weeks after her delivery, in order to have the tumour removed, which operation was performed by Professor Textor. The growth was found to be fibro-cartilaginous, and was connected neither with the bone nor the periosteum. It weighed 11·2 ounces, and was so hard that none but they who were present at the patient's delivery, could have believed its previous softening possible. The patient was completely cured.—*B. and F. Med. Rev.*, from *Neue Zeitschrift für Geburtskunde*, B. ix, S. 1.

43. *On the best and surest way of inducing Premature Labour.*—Dr. MEISSNER of Leipsic, from experience condemns all the usual means of inducing premature delivery, as none of them are free of danger to mother or child. Thus puncture of the membranes, by allowing the *liquor amnii* to escape, often causes death of the child; dilatation of the uterine orifice by means of prepared sponge is tedious, and apt to give rise to dangerous uterine irritation, as is also separation of the

membranes, and titillation of the vaginal portion of the uterus; whilst ergot of rye, borax, &c. are often fatal to the child and dangerous to the mother.

During the last five years he has attended 900 deliveries, and has induced premature labour in eight with perfect safety to both mother and child. In all these cases the women were deformed or rickety, and their pelvis were diminished in their antero-posterior diameter so much as in their previous deliveries to require perforation of the head of the infant in order to effect their delivery.

Dr. Meissner never induced premature labour till the thirty-sixth week of pregnancy, and in all the cases the antero-posterior diameter varied from two inches and three quarters to three inches one line. His mode of operating, which is a modification of that by puncture of the membrane, was the following. A very slender canula is provided of about 13 or 14 inches in length, and bent regularly in the form of a segment of a circle. It has a ring soldered on the convex side of its lower extremity, in order to give a more secure hold, and allow of the point of the instrument being accurately guided. This canula is provided with two trochars, one with a blunt point and the other with a sharp-cutting point. When the instrument is to be used, the blunt-pointed trochar is introduced to the canula, and projects beyond its orifice so far as to prevent the edge of the tube injuring the parts. The patient then stands before the practitioner, who kneels before her, the usual manner in which vaginal examinations are made on the continent, or she may sit on the very edge of a chair or of the bed. The forefinger of the left hand is then introduced into the vagina, and the canula guided along it to the orifice of the uterus, making the convexity of the instrument correspond to the curve of the sacrum. The point of the instrument is then pushed slowly backwards and upwards, so as to make its rounded point slide between the uterus and the back of the membranes. When the point is once past the neck of the uterus, it advances easily, care only must be taken to detach the membranes as little as possible. When the point of the instrument is about 10 or 11 inches within the *os uteri*, the blunt-pointed trochar is withdrawn, and the handle of the instrument is pressed against the perinæum, to detect, if possible, against what the point of the canula is pressing. If it be felt to be a hard body, the point is made to move to one side or other till an elastic fluctuating spot be reached, which shows it is opposite the membranes alone; the sharp-pointed trochar is then introduced and perforation of the membranes is made. The trochar is then withdrawn, and about a table-spoonful of the *liquor amnii* is allowed to escape; after this the canula also is removed, and the woman is allowed to walk, sit, or lie down at her own pleasure. The amniotic waters after this slowly, and drop by drop escape, and appear to prepare the parts for delivery, so that after 24 hours the hand may easily be introduced into the vagina. Labour-pains usually come on from 24 to 48 hours after the puncture of the membranes; in several of the cases, delivery was completed 36 hours after the puncture.—*Ed. Med. and Surg. Journal*, from *Medizin. Annalen*, No. 4 Vol. vi.

44. *Compression of the Aorta as a means of arresting Uterine Hemorrhage.*—Dr. PIEDAGNEL communicated to the *Société Médicale d'Emulation*, on the 4th of April, 1840, two cases in which uterine hemorrhage, following labour, was immediately arrested by compression of the aorta. These cases were referred to MM. VELPEAU and BRIERE de Boismont, who made a report in relation to them on the 6th of May. This last paper contains so admirable a summary of the history of this therapeutic measure, that we are sure we shall gratify and instruct our readers by transferring the principal part of it to our pages.

“The idea of compressing the aorta to arrest uterine hemorrhage, must naturally have suggested itself as soon as the laws of anastomosis became well known, and accoucheurs saw the splendid conquests of modern surgical art in the vast field of aneurisms. But before investigating the origin of hemorrhages and discussing the value of compression, it is not without utility, in a few words, to trace the history of this new mode of cure. When MM. Trehan and

Baudeloque (nephew) published their memoirs,* compression had not been practised at all in France, but the moment that attention had been called to this subject, the ancients were searched, the foreign journals were hunted through, and soon, according to invariable custom, it was found that many authors before MM. Trehan and Baudeloque had spoken of this hemostatic remedy. This time we cannot go back to Hippocrates, and the honours of this priority fall to Daniel Louis Budiger, an accoucheur of Tubingen. In order to ascertain the real truth of these assertions, we have consulted the works referred to; and here is the result of these researches: Budiger employed compression of the aorta for the first time in a female who had just lain in and was at the point of death from loss of blood. The flooding lessened immediately; the uterus contracted; the mother was revived and saved. Budiger adds that he has had recourse to this remedy in a score of cases.

"Ploucquet published the new operation, the description of which had appeared in the Journal of Loder in 1797. He says positively that compression of the aorta had been made *per manum in utero adhuc expanso*.†

"Compression of the aorta to arrest uterine hemorrhages had been proposed, or at least employed nearly at the same epoch, by the celebrated Danish accoucheur, Math. Saxtorph. He compressed this vessel by acting on the womb through the walls of the abdomen.‡

"In 1812 Boër expressed himself thus: 'Inter alia conamina nuper etiam hoc legitimus; inductâ manu posterior uteri paries satis opprimitur ut, descenditis retro aortæ, velut suffocatione sanguis irruere in interum per subditos ramos præpediatur. Ecce nova alia procul ægris excogitata instructio! Quam circa candidus afferans quæ duobus periculis sum expertus. Ubi nempe uterus modice crassus et contractus est, compressio arteriæ, etiam si fieri possit, inefficax, ac ne quidem necessaria est. At flaccido et amplo viscere, ut manus robur in arteriam penetret, mors alioqui fores pulsât, ex uteri paresi scilicet, cuius hemorrhagia solum consequentia est, ut, nisi apoplexiam loci sustuleris, ægra occidat, sanguis fluat, necne. Id saltem compertum in præsens ego habeo.'§ This passage from Boër's work conclusively establishes that compression of the aorta was well known in Germany; that accoucheur, however, entertains an unfavourable opinion of this procedure, although it is probable that he objects to the manner of doing it. At the present day compression in the uterus is generally abandoned.

"Dr. Ulsamer, of Würzburg, repeatedly compressed the aorta with success. The cases cited by him in his work are clear and precise.¶ He used two fingers to arrest the course of the blood. Nearly at the same period Eichlberg, Siebold, MM. Baudeloque, nephew, and Tréhan reported cases of cure of uterine flooding by compression of the aorta. The two latter physicians, who were not aware of the labours of the Germans, believed themselves to be the inventors of this operation, and laid claim to the priority in it. Siebold's researches were made in 1828. In the case cited by him the aorta was compressed with the fist.

"We shall not dwell longer on this order of facts; they put it beyond a doubt

* Trehan, p. 1. Nouveau traitement des hémorrhagies utérines qui suivent l'accouchement par la compression de l'aorte.—Paris, 1829; in 8vo., p. 29. Baudeloque neveu, Traitement des pertes de sang qui peuvent suivre l'accouchement, par la compression de l'aorte exercée sur le ventre, la pression convenable du ventre et l'usage du seigle ergoté et des fortifiants.—*Journ. des Conn. Méd. Ch.*, 1834, t. i, p. 201.

† Loder's Journal, für die Chirurgie Geburtshülfe und Gerichtliche Arzneikunde, b. 1, p. 493, 1797; vide t. ii of Ploucquet, Repert. Medicinæ Practicæ Chirurgiæ atque rei Obstetricæ, art. *Hemorrhagia, Compressio aortæ descenditis*, p. 261. Tubingw., 1808.

‡ Math. Saxtorph's Gesammelte Schriften Geburtshüllichen, praktischen und physiologischen Inhalts. Complete works of Math. Saxtorph, published by P. Scheil, Copenhagen, p. 229.—1803.

§ Boër, Nat. Med. Obstet. lib. sept., p. 525.—Vienna, 1812.

¶ See Friederich et Hesselbach: Beiträge zur Natur und Heilkunde, t. 1, p. 261.—1825.

that the treatment of uterine floodings by compression of the aorta is by no means new, and if honourable physicians have insisted on their having discovered this expedient, it is because, at the epoch of their proclaiming it, the works of the Germans were very little known, owing to the difficulties presented by their language.

"Compression of the aorta is then unquestionably registered in the annals of our science; but has this remedy all the efficacy attributed to it, or are we to believe, with some, that it is useless and even hurtful? Two opinions so opposite can only arise from the mode of explaining the origin of uterine hemorrhage.

"If the blood be furnished by the arteries—and the anatomical disposition of the vessels, which acquire a prodigious development, favours this opinion—the theory would teach us to compress the main trunk; but if the blood comes from the venous system, as M. Jacquemier assures us it does, compression of the aorta would have none of the utility accorded to it. The last named author, founding his opinion on an examination of the vascular circle of the uterus, and of the manner in which the venous circulation is effected there, ascribes flooding mainly to a want of resistance of the utero-placental veins. Whatever tends to favour the stasis of blood in the uterine veins a little too long, establishes a predisposition to repeated losses. The quantity of blood furnished by the utero-placental arteries must be infinitely small.

"Compression of the aorta, continues Dr. Jacquemier, cannot attain the end proposed. By that measure we force the blood to pass more rapidly and abundantly through the divisions of the aorta above the point compressed; the upper vena cava bringing to the right auricle more blood than usual, the lower vena cava remains in a state of distension. The ovarian and uterine veins destitute of valves, partaking of the overloaded state of the inferior vena cava, it follows that the blood retrogrades into the uterine cavity, as long as the contraction of the uterus does not serve as a valve or check.*

"It cannot be denied that M. Jacquemier's explanation is ingenious; but we must admit that the mechanism of uterine floodings is similar to that of other hemorrhages; if it be so, the capillaries ought to have a large share in the production of these hemorrhages, which take place then by a true exhalation from the internal surface of the uterus. This explanation, favourable to compression of the aorta, is moreover justified by the facts already cited, and by the observations we are about to report.

"But if compression of the aorta be, as M. Velpeau thinks, a resource at once important and easy, it must not be lost sight of, that in thus suspending the afflux of arterial blood, we may equally check the return of venous blood, and that we ought, as much as possible, to avoid, at the same time, compressing the vena cava.

"M. Piedagnel's observations are two in number; the first was in the case of a young lady, whose confinement, which had been natural, was followed by a flooding which cold water injections could not arrest. This physician then had recourse to compression of the aorta, seconded by the employment of refrigerants. The patient presented most of the symptoms observed in persons perishing of hemorrhage. As soon as he had put this expedient in operation, the flow ceased, but the convalescence was long.

"Observation second relates to the same lady. Her flooding was immediately combated with compression of the aorta; the blood stopped running, but the womb remained inert; a stream of cold water, directed into the interior of the organ, brought on contractions. Napkins placed above and maintained by a body bandage, completed the cure. The duration of the flow, in this instance, was from 20 to 25 minutes.

* Recherches d'anatomic, de physiologie et de pathologie sur l'utérus humain pendant la gestation, et sur l'apoplexie utéro-placentaire, pour servir à l'histoire des hémorrhagies utérines, du part prématuré et abortif; par M. Jacquemier.—*Arch. Gén. de Méd.*, 1839.

"There is no accoucheur who, in the course of his practice, has not seen women recently delivered losing blood enough to bring on swooning, dimness of sight, and partial fainting, and these symptoms spontaneously disappearing at the moment we are about having recourse to energetic treatment. At other times cold applications and astringent drinks have sufficed to suspend the discharge of blood. In many cases we have availed ourselves most successfully of stimulation of the uterus, whose contractions we have excited by passing the ends of the fingers over the internal surface of the organ, while we compressed the womb with the left hand on the abdomen. Finally, the administration of ergot has very often triumphed over uterine hemorrhages. Perhaps the employment of some one of these means would have sufficed in the second case; but M. Piedagnel, who still had in his mind the grave symptoms of the former hemorrhage, acted prudently in resorting to the remedy which had succeeded so well with him the first time.

"The interest attached to this subject engages us to report two other cases, which we owe to the kindness of our honourable confrère, M. Pinel Grandchamp. A lady, after a laborious delivery, in 1834, was taken with a considerable flooding. M. Pinel, time after time, introduced his hand into the vagina and uterus, to extract the clots and excite the internal face and the neck of this viscus, expressed into the womb the juice of several lemons, and made free aspersions of cold water, all in vain, the swoons rapidly succeeded one another. In this state of things our colleague thought of compression of the aorta, and practised it for an hour. When he intercepted fully the passage of the blood in the artery, he observed the following phenomena:

"The countenance regained a portion of its natural colour; the eyes became more animated, the lips more rosy; the pulse rose again; it was frequent, and had some fulness; the strength of the heart was increased; the patient came out of the state of syncope or prostration, into which a slight compression had almost immediately thrown her. She then said that she felt much better. The blood no longer flowed externally, although the uterus and vagina were freed from clots.

"When he suspended the compression, the blood no longer issued as abundantly, or with the same force, but if it recommenced flowing, all the phenomena of syncope reappeared, and the pulse almost ceased beating. Only an hour and a half after the operation, the uterus began to recover itself and contract so as no longer to create any fear of inertia. Twelve days afterwards the patient was perfectly restored.* No ergot whatever was administered; it would probably, adds M. Pinel, have aided me in more quickly overcoming the inertia of the uterus.

"In the course of that year M. Pinel Grandchamp was called, in consultation, by Dr. Marye, to a woman who had been losing blood several hours. By touching he recognised the placenta inverted on the neck. Having introduced three fingers behind the symphysis, partly to detach the placenta, he ruptured the bag of waters, and slowly penetrated into the interior of the womb. The head was in the first position at the superior straight; he applied the forceps in this straight, which, on account of the space in which we manœuvre, is easier than generally supposed. The child was withdrawn alive, but half asphyxiated. While our cares were directed to its recovery, the sound of a liquid running on the floor apprized us that the mother was bleeding freely.

"Notwithstanding her delivery the blood continued to flow, and the patient's faintings continually increased; M. Pinel, after having in vain injected cold water, and squeezed several lemons in the cavity of the womb, resorted to compression of the aorta, which momentarily arrested the flooding; but as soon as they ceased applying the fingers the blood reappeared as abundantly as before. At length, an hour having elapsed, it seemed to run somewhat less. A peeled lemon was introduced anew, and the hemorrhage gradually stopped.

"These cases, those reported by the authors, sufficiently attest the utility of

* *Censeur Médical*, Avril, 1834, p. 301.

compression of the aorta. But this point established, it remains for us to consider the place to be chosen for the operation, the manner in which it is to be performed, and its duration.

"All the modifications proposed can be reduced to three procedures. Some, as Budiger, Eichelberg, carry the hand into the uterus; others, as Saxtorph, reach the aorta by acting on the womb through the walls of the abdomen; finally, the third party, whose method is generally followed now, compress the artery above the womb.

"The introduction of the hand into the uterus, and resting on its posterior region, has been rightly blamed. This plan indeed is bad, and of difficult application; it exposes the tissue of the organ to a kind of attrition; it is moreover impracticable when the womb begins to react. However it has many times succeeded. Eichelberg cites the case of a woman in whom compression thus effected lasted an hour; the moment it was stopped the blood flowed.

"The physical condition of the female just delivered is favourable for compressing the aorta independently of the thinness of the walls, which, by the spreading out of the recti abdominis muscles, are reduced to that of the skin and two aponeurotic and serous membranes, which allow the aorta and vena cava to be almost directly touched; the intestines have, so to speak, chosen an abode in the lateral portions of the abdomen.

"The fundus of the womb also can easily be pushed into the region of the loins, or into the pelvis, whilst in the normal state, besides the thickness, sometimes considerable, of the walls, due to the accumulation of fatty cellular tissue, we are obliged to press on the intestines in order to reach the aorta, which makes the operation more difficult and painful.

"Compression through the abdominal parietes can be exerted with the thumb, with two or with four fingers, as preferred by MM. Baudeloque, Tréhan and Ulsamer. We have seen that Siebold had practised it with the closed hand applied a little to the left of the spine; this plan is more difficult in execution than the two preceding. M. Piedagnel employed the cubital margin of his hand. M. Pinel Grandchamp, advises us to press the artery moderately with the fingers; in bearing forcibly on the vessel the fingers grow numb and the operation cannot be continued long by the same person. This means, it appears to us, ought to be employed in preference to all others. To reach the aorta the precaution must be taken to turn aside the intestines; the arterial pulsation indicates the presence of the vessel. It is then compressed longitudinally without involving the inferior vena cava in the manœuvre.

"The duration of the compression has been a matter of very diverse opinions. Some have limited it to five, six and seven minutes; others have prolonged it an hour or two. Eichelberg and M. Pinel Grandchamp, did not succeed in arresting the blood in less than an hour. M. Paul Dubois thinks we must continue this operation an hour or two, and then suspend it by degrees, assuring ourselves that the bleeding appears no more. The examples cited by us prove that simple compression suffices to check the hemorrhage, but we believe it better to associate with it the spurred rye, (ergot).

"However it may be with the combination of these two means, we are not the less persuaded that compression of the aorta has been and will be of real service; moreover M. Piedagnel appears to us to have done well in adding his observations to those of Blount,* of MM. Brossart,† Latour,‡ Lowenhardt,§ and Martins.||—*La Lancette Française*, May 12, 1840.

* Ingleby on Uterine Hæmorrhagy, p. 249.

† Thesis, Strasbourg, Feb., 1830.

‡ Revue Médicale, t. iii., p. 22, 1830.

§ Revue Médicale, *id.*

|| *Ibid.*